

## XI. APPENDICES

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ornu  
rec





United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

Grass Valley Service Center  
113 Presley Way, Suite 1  
Grass Valley, CA 95945  
(530)272-3417

April 14, 1999

To CALFED:

As Chairperson of the Yuba Watershed Council, I am communicating to CALFED the unanimous endorsement of the "Yuba Tools" proposal by the Council on April 8, 1999.

The Yuba Watershed Council is one of the most successful collaborative watershed efforts in the Sierra Nevada and represents 21 local, state and federal stakeholders.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in cursive script that reads "Ron Zinke".

Ron Zinke  
District Conservationist  
Natural Resources Conservation Service  
Chairperson of the Yuba Watershed Council

## MEMORANDUM OF UNDERSTANDING

Between the

Nevada County Resource Conservation District, County of Nevada, US Forest Service, USDA Natural Resources Conservation Service, California Department of Forestry and Fire Protection, California State Parks, Northern Sierra Air Quality Management District, North San Juan Fire Protection District, Yuba Watershed Institute, South Yuba River Citizens League, City of Nevada City, Bureau of Land Management, Nevada County Superintendent of Schools Office, Friends of Deer Creek.

This Memorandum of Understanding (MOU) is made and entered into between the above signatories.

## I. PURPOSE

The purpose of this MOU is to establish a framework upon which the parties may cooperatively plan mutually beneficial work projects and activities envisioned by the State of California Proposition 204, California Water Code, Division 24, Safe, Clean, Reliable Water Supply Act, Article 5, Delta Tributary Watershed Program.

## II. INTRODUCTION

WHEREAS, all parties have a mutual interest in developing watershed rehabilitation projects to protect regional water quality and corresponding watershed properties for the public good; and

WHEREAS, all parties have the public responsibility to identify and take corrective actions where water quality may become degraded; and

WHEREAS, all parties administer properties that are eligible for grants provided under the Delta Tributary Watershed Program.

NOW, THEREFORE, in consideration of the above premises, the parties hereto agree as follows:

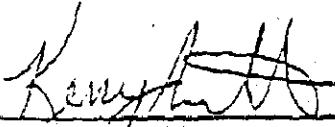
## III. PARTIES AGREE TO


1. Actively pursue opportunities for mutually beneficial work projects or activities that fit under the Delta Tributary Watershed Program.
2. Enter into supplemental agreements or other legal instruments with each other to implement any grant funding received under the auspices of this program.

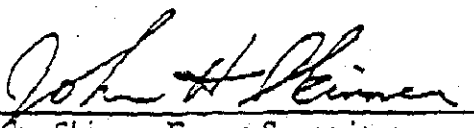
## IV. GENERAL TERMS AND CONDITIONS

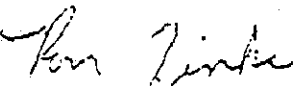
1. This agreement is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not give that authority.
2. Modifications within the scope of this instrument shall be made by the issuance of a bilaterally executed modification prior to any changes being performed.
3. This instrument in no way restricts any signatory party from participating in similar activities with other public or private agencies, organizations and individuals.
4. Any signatory party, in writing, may request termination of their participation at any time before the date of expiration.

This instrument is executed as of the last date shown below and will expire on September 30, 2001, at which time it will be subject to review, renewal, or expiration.

 12/18/97  
Kerry Arnett, President  
Nevada County Resource Conservation District

 1/6/98  
~~Rene Antonson~~, Chairman, Sam Dardick  
Nevada County Board of Supervisors

 12/19/97  
John Skinner, Forest Supervisor  
US Forest Service, Tahoe National Forest

 12-22-97  
Ron Zinke, District Conservationist  
USDA Natural Resources Conservation Service

Jim Marchio 12-18-87  
Jim Marchio, Unit Chief  
California Department of Forestry and Fire Protection

J. Ray Patton  
J. Ray Patton, Park Superintendent  
California State Parks

Rodney A. Hill 12/15/97  
Rodney A. Hill, Air Pollution Control Officer -  
Northern Sierra Air Quality Management District

Charlotte Killigrew 12/16/97  
Charlotte Killigrew, Chairperson, Board of Directors  
North San Juan Fire Protection District

Bob Erickson 12/17/97  
Bob Erickson, President, Yuba Watershed Institute

Roger Hicks 12/24/97  
Roger Hicks, President, Board of Directors  
South Yuba River Citizens League

Harry Stewart 12/17/97  
Harry Stewart, Mayor, City of Nevada City

Deane Swickard 12/21/97  
Deane Swickard, Field Manager  
Bureau of Land Management

Terence McAteer 12/18/97  
Terence McAteer, Superintendent of Schools, Nevada County

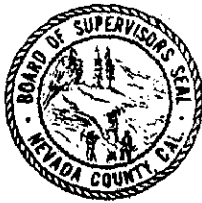
Mary Anne Kreshka 12/16/97  
Mary Anne Kreshka, Chairperson, Friends of Deer Creek

**APPENDIX B**

**NEVADA COUNTY BOARD OF SUPERVISORS RESOLUTION 99168**

**Resolution Attached.**





**RESOLUTION No. 99168**

OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NEVADA

**A RESOLUTION SUPPORTING SUBMISSION OF A 1999 CALFED ECOSYSTEM RESTORATION GRANT PROPOSAL BY THE SOUTH YUBA RIVER CITIZENS LEAGUE (SYRCL) TO BEGIN A FACILITATED COLLABORATIVE EFFORT TO EVALUATE NON-DAM FLOOD CONTROL ALTERNATIVES FOR THE YUBA WATERSHED**

WHEREAS, CALFED, through the 1999 Ecosystem Restoration Grant Program, provides an opportunity for counties whose watersheds influence the Bay-Delta, including Nevada County, to obtain grant funding to improve those watersheds; and

WHEREAS, this community recognizes the Yuba Watershed Council as a long-term collaborative effort designed to address the social, economic and environmental concerns within the Yuba Watershed, and

WHEREAS, the County is in support of the cooperative effort of all the agencies and community groups that participate in the relevant collaborative processes; and

WHEREAS, the South Yuba River Citizens League will serve as the lead organization and fiscal agent for the cooperative flood control assessment project described in the grant proposal.

WHEREAS, this proposal has been endorsed by the individual members of the Yuba Watershed Council.

NOW, THEREFORE, BE IT RESOLVED, that the Nevada County Board of Supervisors does hereby support the submission of a CALFED 1999 Ecosystem Restoration Grant proposal by SYRCL to begin a facilitated collaborative effort to evaluate non-dam flood control alternatives for the Yuba Watershed.

PASSED AND ADOPTED by the Board of Supervisors of the County of Nevada at a regular meeting of said Board, held on the 13th day of April, 1999, by the following vote of said Board:

Ayes: Supervisors	Peter Van Zant	Bruce Conklin
-------------------	----------------	---------------

Ayes: Supervisors Peter Van Zant, Bruce Conklin,  
Elizabeth Martin, Sam Dardick.  
Noes: Karen Knecht.  
Absent: None.  
Abstain: None.

ATTEST;

CATHY R. THOMPSON

Clerk of the Board of Supervisors //

By Sally R. Thompson

e. Chairman

THE FOREGOING INSTRUMENT IS A  
CORRECT COPY OF THE ORIGINAL Res 99. 168  
ON FILE IN THIS OFFICE

ATTEST: APR 15 1999

**CATHY R. THOMPSON**

**Clerk of the Board of Supervisors**

COUNTY OF NEVADA

By A. Martinez Deputy[illegible]

## APPENDIX C

### CAMPTONVILLE PROP. 204 COMMITTEE (ALSO KNOWN AS YUBA WATERSHED PROTECTION AND FIRE SAFE COUNCIL)

YUBA TOOLS WAS PRESENTED TO THE CAMPTONVILLE PROPOSITION 204 COMMITTEE IN MARCH, 1999.  
THE COMMITTEE IS NOT ORGANIZED TO ENDORSE SPECIFIC PROPOSALS.

#### COOPERATING AGENCIES

California Department of Forestry and Fire Protection (CDF)  
United State Forest Service  
California Department of Fish and Game  
Dobbins/Oregon House Fire Protection Department  
Foothill Fire Department  
Camptonville Fire Department  
Smartsville Fire Department  
Loma Rica/Browns Valley Fire Department  
USDA Natural Resources Conservation Service  
Private Industrial Timber Landowners  
Pacific Gas & Electric  
Yuba County  
UC Cooperative Extension  
High Sierra Resource Conservation & Development Area  
Yuba County Resource Conservation District  
Yuba County Water Agency  
USDA Farm Services Agency





## APPENDIX D

### YUBA RIVER FISHERIES TECHNICAL WORKING GROUP

#### COOPERATORS

Yuba Tools was developed with significant input by members of the Yuba River Fisheries Technical Work Group. On April 13, 1999 the Yuba Tools proposal was formally presented to the Yuba River Fisheries Technical Work Group. YRFTWG unanimously endorsed the following statement:

The Yuba River Fisheries Technical Work Group endorses collaborative stakeholder based investigations of flood control and watershed management activities in the Yuba Watershed.

The Yuba River Fisheries Technical Work Group is comprised of the following:

Michael Morse, US Fish and Wildlife Service  
Gary Taylor, US Fish and Wildlife Service  
William Mitchell, Jones & Stokes  
Carl Mesick, US Fish and Wildlife Service/AFRP  
Craig Fleming, US Fish and Wildlife Service/AFRP  
Julie Brown, California Department of Fish and Game  
Craig Seltenrich, PG&E Aquatic Fisheries Biologist  
Shawn Garvey, SYRCL  
Michael Bryan, Surface Water Resources Inc.  
Jennifer Carville, Friends of the River



## **Yuba River Technical Working Group Agenda**

Date: April 13, 1999

Location: 3310 El Camino, Conference Room B  
Sacramento, Ca.

Time: 0900-1200

Action Item from February 3, 1999 meeting

Get individual agency management input on letters of support, MOU and the like.

1. Agenda and minutes review.
2. CALFED proposals
  - a) Mike B: Category III proposal for Enhancement/Implementation Plan
  - b) Shawn G: Upper Watershed Restoration Plan
  - c) Shawn G: All inclusive watershed group for Yuba River
  - d) ~~Shawn G: River Keeper~~
3. Updates
  - a) Bill M and Carl M: Steelhead Life History Study
  - b) Carl M and John N: Daguerre Point Dam Army Corps Study
  - c) John N: Screens at Daguerre Point Dam
  - d) Craig F: Yuba Goldfields Barrier Feasibility study
4. Letterhead/group support/MOU
5. Charge and Ground Rules
6. Next meeting?

APPENDIX E  
LETTERS OF SUPPORT AND ENDORSEMENT





United States  
Department of  
Agriculture

Forest  
Service

Tahoe  
National  
Forest

631 Coyote Street  
Nevada City, CA  
95959-2250  
530 265-4531  
530 478-6118 TDD  
530 478-6109 FAX

File Code: 2520

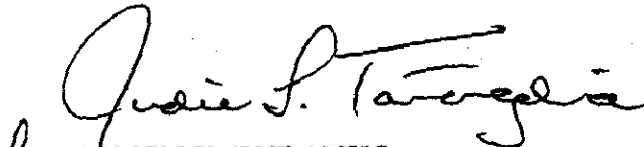
Date: APR 9 1999

Mr. Shawn Garvey, Executive Director  
South Yuba River Citizen's League  
P.O. Box 841  
Nevada City, CA 95959

Dear Shawn:

Regarding the discussion you and I had, I just wanted to reiterate that I support the idea of a variety of stakeholders getting together to discuss watershed issues to hopefully develop widely supported solutions where there now exist varying levels of disagreement on those issues. The Tahoe National Forest will certainly be happy to participate in this kind of approach when public interests on the National Forest are affected.

Sincerely,

  
for STEVEN T. EUBANKS  
Forest Supervisor



Tools, Collaborators and Partners

**Subject: RE: Yuba Tools: Collaborators and Partners**

**Date: Mon, 12 Apr 1999 16:40:32 -0700**

**From: Eric Larsen <ewlarsen@ucdavis.edu>**

**To: "Shawn Garvey" <syrcl@syrcl.org>**

Shawn,

do. If you want to add my name to the list of supporters of your CALFED grant,

Eric

**Subject: Re: Yuba Tools: Collaborators and Partners**

**Date:** Tue, 6 Apr 1999 18:05:51 -0700

**From:** "Jerry Meral" <jmeral@pcl.org>

**To:** "Shawn Garvey" <syrcl@syrcl.org>

Shawn

If it is of any value, please add PCL.

Jerry

-----Original Message-----

From: Shawn Garvey <syrcl@syrcl.org>

Cc: Beckwitt <sbihome@oro.net>

Date: Tuesday, April 06, 1999 1:02 PM

Subject: Yuba Tools: Collaborators and Partners

>Friends ---

>  
>Attached is a grant labeled "Yuba Tools" that will be submitted to  
>CALFED on April 16. "Yuba Tools" proposes to establish a collaborative  
>effort between stakeholders in Yuba County, Nevada County and Sierra  
>County towards evaluation of non-dam flood control proposals common in  
>other Sierra Watersheds -- levee setbacks, floodplain easements,  
>watershed management, etc -- but to date have not been seriously (or at  
>all) discussed for implementation in the Yuba Watershed.

>  
>The proposal has been presented to the Camptonville Proposition 204  
>Committee and the Lower Yuba Technical Working Group. It will be  
>presented to the Yuba Watershed Council for consideration of  
>endorsement. It will also be presented to the Nevada County Board of  
>Supervisors and approximately 20 other organizations for endorsement as  
>Partners.

>  
>Please consider adding your name to the list of partners on this  
>important proposal. Please call with any questions or comments.

>  
>Thank you,

>  
>Shawn Garvey

>



# Sierra Nevada Group

MOTHER LODGE CHAPTER

SIERRA CLUB

5/12/99

Lester Snow, Executive Director  
CalFed 1416 9<sup>th</sup> St., Rm. 1155  
Sacramento, CA 95814

Dear Mr. Snow:

I fear that present efforts to resolve flooding issues on the Yuba have become fixated on dams. There are potentially other solutions which might be less expensive yet equally effective. I strongly support the Yuba Tools project as a means to examine these other possibilities.

Sincerely,

James Hurley  
Sierra Nevada Group of the Sierra Club

**Subject: Re: Yuba Tools: Collaborators and Partners**

**Date:** Mon, 12 Apr 1999 16:55:07 -0500

**From:** "Laurel Ames" <sierran@sierra.net>

**To:** "Shawn Garvey" <syrcl@syrcl.org>

Shawn - thank you for saying yes to a board position. And yes, the Alliance will be collaborators. Laurel

-----Original Message-----

**From:** Shawn Garvey <syrcl@syrcl.org>

**Cc:** Beckwitt <sbihome@oro.net>

**Date:** Tuesday, April 06, 1999 3:07 PM

**Subject:** Yuba Tools: Collaborators and Partners

Friends ---

Attached is a grant labeled "Yuba Tools" that will be submitted to CALFED on April 16. "Yuba Tools" proposes to establish a collaborative effort between stakeholders in Yuba County, Nevada County and Sierra County towards evaluation of non-dam flood control proposals common in other Sierra Watersheds -- levee setbacks, floodplain easements, watershed management, etc -- but to date have not been seriously (or at all) discussed for implementation in the Yuba Watershed.

The proposal has been presented to the Camptonville Proposition 204 Committee and the Lower Yuba Technical Working Group. It will be presented to the Yuba Watershed Council for consideration of endorsement. It will also be presented to the Nevada County Board of Supervisors and approximately 20 other organizations for endorsement as Partners.

Please consider adding your name to the list of partners on this important proposal. Please call with any questions or comments.

Thank you,

Shawn Garvey



**Subject: Re: Yuba Tools ... a charm....**

**Date: Mon, 12 Apr 1999 08:01:52**

**From: Nicholas George <ngeorge@jps.net>**

**To: Shawn Garvey <syrcl@syrcl.org>**

I, Nick Jedenoff, in confirmation of my conversation with SYRCL Executive director Shawn Garvey on Sunday 4/11/99, hereby provide written confirmation that I endorse and support the proposal attached <"C:\INJCURR\DOWNLOA1\YubaTool.doc"> as of this date, Monday 4/12/99.

Nick Jedenoff  
P O Box 1784  
Cedar Ridge CA 95924-1784  
(530) 274-1181

(I have made note of minor typographical errors in the attachment which do not change its intended meaning (see attachment for details.)

+++++

At 05:12 PM 4/9/99 -0700, you wrote:

>

>

>Nicholas George wrote:

>

>> Shawn, I will probably do as you suggest, after I receive the text. (The  
>> attachment was rejected)

>>

>> Reason: I have had "large message attachments disabled", and "do not  
>> store messages on server" enabled as an additional hedge against virus  
>> infection. So I will change the settings, and invite your re-transmission.

>>

>> Nick

>>

>>

+++++

>> At 02:00 PM 4/9/99 -0700, you wrote:

>> >Nick --

>> >

>> >We would be honored if you would endorse the attached proposal for  
>> >CALFED to provide flood control management for the entire Yuba

>> >Watershed. It was endorsed 15 - 0 at Wednesday's Yuba Watershed Council  
>> >meeting.

>> >If this is okay, please fax a 1 paragraph letter of support by Tuesday  
>> >to 530.265.6232 or email here....

>> >Thanks much.

>> >

>> >Shawn

>> >Content-Type: application/msword;

>> > name="Yuba Tools.doc"

>> >

>> >

>> >

>> >

>> >WARNING: The remainder of this message has not been transferred.

>> >The estimated size of this message is 115448 bytes.

>> >Click on the server retrieve icon above and check mail again to get the  
>> >whole thing. If the server retrieve icon is not showing, then this message

>> >is no longer on the server.

>> >

>

>Attachment Converted: "C:\INJCURR\DOWNLOA1\YubaTool.doc"

>

Re: Yuba Tools

**Subject: Re: Yuba Tools**

**Date:** Mon, 12 Apr 1999 14:36:59 -0700

**From:** Don Jacobson <dj@oro.net>

**To:** Shawn Garvey <syrcl@syrcl.org>

Shawn,

The Forest Issues Group enthusiastically supports Sout Yuba Citizens's League Yuba Tools Proposal.

Don Jacobson  
Coordinator  
Forest Issues Group  
P.O. Box 2167  
Grass Valley, CA 95945  
530-272-1433  
dj@oro.net

At 01:57 PM 4/9/99 , you wrote:

>Don ---

>

>Can I get a simple 1 sentence letter of support from you re: Yuba Tools  
>by next Tuesday? If so, please fax to 530.265.6232.

>

>Thank you very much.

>

>Shawn

Re: Thank you

**Subject: Re: Thank you**  
**Date: Fri, 9 Apr 1999 16:01:38 -0800**  
**From: darcy@rri.org (Darcy Rollins)**  
**To: Shawn Garvey <syrcl@syrcl.org>**

shawn-

Darcy Rollins  
Resource Renewal Institute  
Fort Mason Center, Pier One  
San Francisco, CA 94123  
Ph: 415 928 3774  
Fax: 415 928 5629

Darcy Rollins  
Coordinator, Special Projects  
Resource Renewal Institute  
(415) 928.3774  
darcy@rri.org

**APPENDIX F**  
**A CONCEPTUAL MODEL OF THE AQUATIC ECOSYSTEM OF THE YUBA RIVER**



**Draft**

**A Conceptual Model of the Aquatic Ecosystem of the  
Yuba River**

by

**The Yuba River Technical Work Group:**

**Yuba County Water Agency**

**Pacific Gas & Electric**

**Friends of the River**

**South Yuba River Citizen's League**

**Department of Fish and Game**

**U.S. Fish and Wildlife Service**

2 February 1999

## INTRODUCTION

The Yuba River watershed drains an area of about 1,350 square miles, extending from its confluence with the Feather River at Marysville to its headwaters in the Sierra Nevada. At about 33 miles upstream from the Feather River confluence, the Yuba River branches into the south, middle, and north forks, which flow through deep and relatively parallel canyons.

Hydraulic mining for gold was extensive in the Yuba River Watershed in the latter half of the 1800s. The sediment debris from this mining was so extensive that it has been estimated that the deposition of the debris in downstream reaches caused the elevation of the riverbed and floodplain to rise by as much as about 70 feet. Miners currently operating in the Yuba River have estimated that most of this sediment has eroded away, with about a 15-foot deep layer of debris remaining. These miners also claim that there is a large volume of mercury deep in the river's substrate that originated during mining operations during the 1800s.

The California Debris Commission, an element of the U.S. Army Corps of Engineers, began constructing small dams on the Yuba River in 1904 to reduce the downstream movement of hydraulic mining debris. Although hydraulic mining ceased in the late 1800s, it was assumed that mining would resume, although it never did. In 1904 to 1905, Barrier No. 1 Debris Dam was constructed about 4.5 miles upstream from the present Daguerre Point Dam. This dam completely blocked upstream movement of anadromous fish until 1907, when it was destroyed by floods (Wooster and Wickwire 1970).

Daguerre Point Dam (Figure 1) was completed in 1906 and diversion of the river at the dam was completed in 1910. Although two fish ladders were constructed, they were ineffective except during very high flows and they were destroyed by floods in 1927-1928. The ladders were replaced in 1938 and they operated although ineffectively until 1950, when new more effective ladders were constructed.

Old Bullards Bar Dam was constructed on the north fork in 1921 for the Pacific Gas and Electric Company. New Bullards Bar Dam was constructed by Yuba County Water Agency between 1965 and 1970. In cooperation with CDFG, the power intake and outlet to the dam was located and operated to provide water temperatures of the flow releases that would benefit downstream fish populations.

Englebright Dam was constructed by the Army Corps in 1941 for sediment and flood control and it completely blocked anadromous fish from the upper Yuba River. During the 1997 flood, Englebright provided 16,000 acre-feet of flood water storage. Englebright Dam is located on the mainstem river about 24 miles from the Feather River confluence.

Immediately downstream of Englebright Dam, the river flows through a canyon called the "Narrows". Downstream of the Narrows, there is a wide, barren floodplain in which the river channel migrates back and forth during extreme floods.

There are three tributaries below Englebright Dam which include Deer Creek just below the dam

(at the Narrows), Sanford Creek just upstream of the Highway 20 bridge, and Dry creek between the Daguerre Point Dam and the Highway 20 bridge. There are three reservoirs on Deer Creek, which include Lake Wildwood (3,840 AF), Deer Creek Reservoir (1,400 AF) and Scotts Flat Reservoir (49,000 AF).

{Map of the upper and lower Yuba River}

### Fisheries

There are at least 28 species of resident and anadromous fish in the Yuba River (CDFG 1991). The anadromous species, which occur only downstream of Englebright Dam, include chinook salmon, steelhead trout, American shad, striped bass, green and white sturgeon, and Pacific lamprey. These species, particularly spring-run chinook and steelhead, were probably severely impacted by the near-complete blockage of upstream migration at Daguerre Point Dam and low flows and high water temperatures from 1910 to 1949. There are no data on the size of these populations prior to 1953 although it was not until 1952 that CDFG first recommended minimum instream flows for normal and near-normal water years below Englebright Dam to maintain fish populations (it is unknown whether the recommendations were implemented). It was not until 1962 that Yuba County Water Agency agreed to the following minimum instream flows for normal water years below Daguerre Point Dam for preserving and enhancing the fisheries:

October through December	400 cfs
January through June	245 cfs
July through September	70 cfs

Critical water year recommendations were lower, with a critical year defined as a water year for which the April 1 forecast predicted that streamflows in the Yuba River at Smartville will be 50% or less of normal. Flows during critical years were reduced by 15% to 30% compared to normal water years. Releases were not to go below 70 cfs at any time.

In 1965, minimum pool requirements at New Bullards Bar Reservoir (230,000 AF) and flow fluctuation regulations (500 cfs/hr) below Englebright Dam were implemented.

In 1991, CDFG (1991) recommended a new IFIM-water temperature model based flow schedule to be measured at the Marysville gage for normal and wet water years:

October 15 - March 31	700 cfs
April 1-30	1,000 cfs
May 1-31	2,000 cfs
June 1-30	1,500 cfs
July 1 - October 14	450 cfs

During dry water years, CDFG recommended that reductions in fishery flows and offstream diversions would be made on an equal percentage basis. The 1991 CDFG recommendations



have not been implemented. However in recent years, the Yuba County Water Agency has voluntarily exceeded the 1962 minimum flow requirements.

In 1953, CDFG began estimating the number of adult fall-run chinook salmon in the Yuba River.

Although the other species and salmon runs have not been surveyed, sport fishery surveys indicate there was a significant (a peak of 100,000 angler-days in 1965) population of American shad downstream of Daguerre Point Dam. Daguerre Point Dam is a barrier to migration of shad except during extremely high spring flows, such as occurred in 1969.

### Fall-Run Chinook Salmon

Fall-run chinook salmon are the most abundant anadromous fish, averaging about 13,000 fish annually from 1953 to 1992 with a high of 39,000 fish in 1982.

Adult fall-run chinook salmon begin to enter the western Delta near Chipps Island in July and August and they migrate upstream slowly, typically entering the Sacramento River tributaries in September. Adult migration into the Yuba River typically begins in September when attraction flows are adequate (Department of Fish and Game 1991). Studies in the Mokelumne River where video and trapping data at Woodbridge Dam provide an accurate census of migrating adults, indicates that migrations occurred from late October through December in 1990 and 1991 which were dry years (BioSystems Analysis, Inc. 1992), but began in mid August during wet years (EBMUD 1998 unpublished data).

Juvenile fall-run chinook in the Yuba River begin to emerge from the spawning gravel as fry (30-40 mm) beginning in January (Mitchell 1994a) and in 1993, the presence of 40 mm fish suggests that emergence continued through mid-August (Mitchell 1993b) when flows ranged between about 4,200 cfs in March and 2,100 cfs in August. Most of the fry and mid-sized juveniles observed in 1993 were adjacent to submerged willows and woody debris in secondary channels. In 1993, juveniles between 60 and 80 mm were collected at the Hallwood-Cordua screens beginning in late April, peaking in mid May, and tapering off by early June (S.P. Cramer & Associates, Inc. 1994). These fish were probably fall-run smolts migrating to the ocean and perhaps some of the fry observed in June through August were late-fall run fish.

### Spring-Run and Late Fall-Run Chinook Salmon

Smaller populations of spring-run and late fall-run chinook salmon are present in the Yuba River immediately below Englebright Dam although routine surveys to estimate their abundance are not conducted. During SCUBA and snorkeling surveys in August 1992 (Mitchell 1992a) and an aerial survey in mid September 1992 (Mitchell 1992b), several adult salmon were observed in the vicinity of Daguerre Point Dam. These fish were probably spring-run chinook salmon.

### Steelhead

There is also a self-sustaining population of steelhead, although some were stocked in the Yuba River from 1970 to 1979. In January 1994, several spawning steelhead and fifteen small, fresh redds were observed near the outlet from the Yuba Goldfields Mitchell (1994a). Almost no data

are available as to the abundance of steelhead.

#### American Shad

Adult American shad migrate into the lower Yuba River to spawn beginning in mid-May until late June when suitable water temperatures for spawning range between 57 °F and 70 °F. Studies conducted by Jones and Stokes (JSA) in spring 1990 indicated that when Englebright releases were about 1,000 cfs, shad spawned in large run-glides and shallow pools between Hallwood Boulevard and Daguerre Point Dam (Mitchell and Dunn 1990). JSA observed that shad preferred to spawn where velocities ranged between 1.5 and 1.9 ft/sec and at depths between 3.0 and 3.9 feet. Presumably shad cannot migrate past Daguerre Point Dam, except during flood flows such as occurred in 1969 when about 1% of the run was observed above the dam and May flows averaged 7,432 cfs. JSA also speculated that the number of adult shad that entered the Yuba was high when streamflows in the Yuba River were high, particularly if flows in the Feather were low. Large runs of shad were observed in the Yuba in 1969 and 1983, which were very wet years. A large run was observed in the Yuba River in 1990, when spring flows were increased from 331 cfs to about 1,000 cfs in the Yuba River for a study, while flows in the Feather River declined from 3,200 to 850 cfs. JSA speculated that the abundance of adult American shad in the Yuba River was limited by the magnitude of attraction flows and possibly unsuitable water temperatures (JSA 1990).

{Add paragraphs describing what we do know in terms of abundance or life history for each species or run in the Yuba River}

#### Englebright Dam

Englebright Dam was constructed about 12.5 miles upstream from Daguerre Point Dam in 1941 to control hydraulic mining debris and silt that never resumed after the dam was built. The Yuba County Water Agency estimates that there are about 4 million cubic yards of sediment that has been captured by the reservoir, or about one-third of the reservoir's capacity. The reservoir was designed to impound about 70,000 acre-feet of water and when the reservoir is full, about nine miles of the river is inundated. The Army Corps of Engineers operates the dam and the recreational facilities at the reservoir, which includes 100 campsites, picnic areas, and boating access facilities. There are two power generation facilities at the dam that produce 250 million kWh of electricity with a combined capacity of 62 MW. The Pacific Gas and Electric Company (PG&E) operates Narrows I Powerhouse on the left bank of the Yuba, just below the dam. PG&E also has water rights to 45,000 acre-feet of storage plus riparian rights. The Yuba County Water Agency has operated Narrows II Powerhouse, on the right bank about 400 feet downstream of the dam, since 1970. All water released from the reservoir is through the two powerhouses and consequently there is no flowing water in the 0.2 mile reach between the dam and Narrows I Powerhouse, except when the reservoir is spilling.

When powerhouse failures occur, flow releases are drastically reduced below the dam. This occurred during two occasions in spring 1998. On April 9, 1998 flows from Englebright Dam dropped from 4828 cfs to 669 cfs in about one hour and then quickly returned to 4743 cfs about

an hour later. On April 14, 1998 flows dropped from 6,000 cfs to 2,200 cfs in about one hour. The Grass Valley Union newspaper reported on 16 April 1998 that two eyewitnesses noted dead fish along the riverbank. The Yuba County Water Agency has a plan to reoperate their powerhouse such that failures can be repaired remotely and quickly to avoid lengthy flow reductions. The Yuba County Water Agency has requested that the criteria for flow fluctuations in the Yuba River should be reviewed.

The Narrows II Powerhouse operations and the elevation of Englebright Lake can affect the temperature of release flows. Although New Bullards Bar Dam has the ability to release water from varying depths from its cold water pool, this has limited effects on water temperatures downstream from Englebright Reservoir (Yuba County Water Agency 1998). Instead, the depth at which water is released from Englebright Reservoir, as it relates to the water temperature profile in the reservoir, is the primary factor controlling the release temperature from Englebright Dam. The current intake system is a tower that draws water from the surface down to an elevation of 439 feet above mean sea level, about 80 feet below the normal water surface elevation. The Yuba County Water Agency has proposed to extend the intake by about 90 feet deeper to about 10 to 15 feet above the reservoir's bottom (Yuba County Water Agency 1998). The new intake will be adjustable to draw water from a wide range of depths. By providing the ability to draw from the coldwater pool regardless of the reservoir level, it is expected that release temperatures will be reduced by 1.5°F to 6°F compared to existing conditions. The proposed construction schedule is from August through October or November 1999, which coincides with the maintenance of the turbines. Both activities would require shutdown of the powerhouse and construction would require the reservoir to be drawn down to 450 feet msl for about two weeks and then refilled to 490 ft msl for another two to four weeks.

The 206 (208, 260, or 280?) foot-high dam has no fish ladder and is the upstream limit for anadromous fish. Restoration of passage at Englebright Dam might provide additional habitat up to New Bullards Bar dam on the North Yuba River, Our House Dam on the Middle Fork Yuba River, and to a small natural falls near the town of Washington on the South Fork, a maximum of about 56 miles of additional habitat which is a three-fold increase (Yoshiyama et al. 1996). There are many small old, abandoned dams that might block passage and a survey of existing conditions is needed. Upstream habitat would also require increased flow releases and possibly flow stabilization from New Bullards Bar and Our House dams.

#### Daguerre Point Dam

Daguerre Point Dam was built in 1903-1906 by the California Debris Commission to contain hydraulic mining debris (Falxa 1994). The dam filled with about 880,000 cubic yards of sediment within 20 to 30 years of completion and currently has only a shallow pool, generally less than 15 feet, extending about 200 to 300 feet upstream of the dam. The dam is 24 feet high from the crest of its spillway to the apron on the downstream side of the dam. Fish Ladders are currently located on the north and south banks. The north ladder has a pool or resting area located near the downstream entrance but the south ladder does not. The existing fish ladders are relatively small compared to existing specifications for ladder design. When flows exceed about 16,000 cfs, an water surface elevation of 130 feet in the reservoir pool upstream of the dam, the

ladders are closed until the water surface elevation recedes to 127 feet. There are no data to evaluate whether adult salmon and steelhead can migrate over the dam via the water passing over the dam when the ladders are closed. The ladders are closed for a period of time about 50 percent of the years. In 1995, the ladders were closed from 9 January to 10 February. There is about 12 miles of habitat above Daguerre Point Dam to Englebright Dam.

An average of 28 to 33 percent of the river's flow is diverted at Daguerre Point Dam and Brown's Valley intake during May and June. During below normal water years, these diversions could take between 75 and 90% of the river's flow. Instream flow requirements are based on measurements at the Marysville gauge, which is downstream of Daguerre Point Dam, to partially compensate for these diversions.

Factors that may impede or prevent the upstream migration of adult fall-run chinook include suboptimal ladder design and sheet flow across the dam spillway that may obscure ladder entrances. The US Army Corps policy is to leave the gates controlling flow into the ladders wide open up to flows of about 8,000 cfs, which can create high velocities in the ladder. The ladder entrances are also located where the overflow from the spillway makes it difficult for adults to find the entrances. Both ladders, particularly the south one, tends to clog with woody debris that can block passage or substantially reduce attraction flows. The north ladder exit is also close to the spillway, which potentially causes fish to be carried back over the dam. Evidence for passage problems is suggested by the relationship between winter flows at Marysville and the distribution of adult fall-run chinook salmon observed above and below the dam. The ratio of the number of adults above the dam to those observed below the dam was highest (ranging between 2 to 3) at flows of about 500 cfs in 1981, 1985, and 1987. As flows increased above 500 cfs, the ratio of fish above to below the dam gradually declined and at flows greater than 2,000 cfs, more fish were observed below the dam than above. Although this suggests that flows above 500 cfs prevents adults from migrating past the dam, it is also possible that high flows improved water temperatures below the dam for spawning. The US Army Corps of Engineers has been funded by the Anadromous Fish Restoration Program to begin investigating alternatives to improve fish passage at the dam.

*Hypothesis: The dam delays the upstream migration of adult fall-run chinook salmon.*

During high spring flows between 8,000 and 16,000 cfs, when adult spring-run chinook and steelhead are migrating, the upper gate to the ladders are closed to a height of six inches. It is likely that high water velocities and the small opening at the ladder's gate are an impediment to upstream migrating adult salmonids. There are no data regarding the ability of adult salmonids to pass over the dam at flows greater than 8,000 cfs.

*Hypothesis: The dam delays the upstream migration of spring-run chinook and steelhead, particularly at flows between 8,000 and 16,000 cfs.*

It is generally known that predation rates of juvenile salmonids passing over dams is unnaturally high. Predator populations are usually high in the ponds upstream and downstream of the dams and the turbulence of the spilling water tends to disorient juvenile fish. Sacramento squawfish and striped bass have been observed in the downstream pond. However, most juveniles migrate

at night when predation is low.

*Hypothesis: The pools immediately above and below the dam concentrate predators of juvenile salmonids and increase predation rates.*

Poaching of adult salmon at the ladders and at the base of the dam has been well documented by CDFG and is a chronic problem (Falxa 1994). Poachers have tampered with fish ladders to block passage and enhance poaching success.

*Hypothesis: Poaching of adult salmonids occurs at high rates at the fish ladders.*

American shad require ladders with a lower gradient and water velocity than do salmonids (Falxa 1994) and ladders designed for salmonids may explain why few shad migrate past Daguerre Point Dam.

*Hypothesis: The dam and ladders blocks the upstream migration of American shad in most years.*

### Diversions at Daguerre Point Dam

There are three water diversion facilities at or near Daguerre Point Dam managed by the Yuba County Water Agency.

- 1) Halwood-Cordua canal divers water at the upstream surface of the dam, on the north bank. A maximum of about 650 cfs is diverted during the irrigation season, from April through October. CDFG operates a fish screen for four to eight weeks when the number of migrating fall-run chinook salmon is at a peak (more than 100 fish per day). From 1991 through 1994, the earliest the trap was installed was April 7 and the latest it was removed was June 28 (S.P. Cramer & Associates, Inc. 1994). The fish screen is located in the canal about 1,500 feet downstream from the dam. The screen is a fixed V-shaped type, of perforated sheet metal. Predator concentrations occur throughout the 1,500 foot channel, but particularly near the face of the screens (Hall 1979). In 1978, losses of marked hatchery juveniles (released during the day in lots of 1,300 fish) at the screen were about 30%, presumably as a combined result of predation by Sacramento squawfish {replace with correct name} along the face of the screen and by entrainment (Hall 1979). Debris on the trashrack of the screen during the tests produced turbulence that appeared to increase predation rates. Of the control group of fish released downstream of the screen, 25% were not recovered. An evaluation of the cause of these downstream losses was not made.

*Hypothesis: A substantial number of juvenile salmon and steelhead are entrained or eaten by predators in the Hallwood-Cordura Canal.*

- 2) South Yuba-Brophy system diverts water through an excavated channel from the Yuba's

suggested at losses of juvenile salmonids at the South Yuba-Brophy diversion were between 40 and 60%.

*Hypothesis: There is a substantial predation rate on juvenile salmon that enter South Yuba-Brophy in the pond upstream of the diversion dike.*

- 3) Brown's Valley canal diverts water from the north bank of the river, about 4,200 feet upstream of Daguerre Point Dam, at flows up to about 100 cfs. Water enters an excavated side channel, from where it is pumped. This diversion has not had a functional fish screen, but one is proposed for installation in 1999.

A dewatering channel was dug to lower the water level in the Yuba Goldfield area south and west of Daguerre Point Dam. This ditch collects subsurface and surface flows, and empties them into the Yuba River at a point about 7,500 feet downstream of Daguerre Point Dam. Flows entering the Yuba River through the dewatering channel occur year-round and range from about 45 to 150 cfs when Yuba River flows at Marysville are less than 1,000 cfs and range from 100 to 400 cfs when flows at Marysville exceed 2,000 cfs (Smith 1990). These flows attract adult fall-run chinook salmon during their upstream migration. In December 1998, this channel attracted at least several hundred adults (Smith 1990). A screen installed to prevent adult salmon from entering the outfall has failed to prevent adults from entering the channel more than once (Falxa 1993).

*Hypothesis: Adult salmonids that enter the Yuba Goldfields fail to produce offspring that outmigrate.*

*Hypothesis: Outflow from the Yuba Goldfields is contaminated with mercury, oils from the dredging operations, fine sediments, and other substances and these contaminants cause mortality of salmonid eggs and juveniles and aquatic invertebrates.*

### Yuba Goldfields

The Yuba Goldfields are located near Daguerre Point Dam on the Yuba River. The Goldfields area is the result of intensive gold dredging in the late 1800s and early 1900s when up to 27 gold dredges worked the area at one time (Smith 1990). One large gold dredge continues to work the area.

#### {Map of the Goldfields}

The area is dominated by large mounds of dredge spoils interspaced with dredging ponds. The ponds are connected either above the ground via stream channels or below ground as percolation through the substrate. Percolation also occurs from the Yuba River into the ponds. In 1988, a new channel was constructed to return much of this flow to the Yuba River at about 1.5 miles downstream of Daguerre Point Dam. Surface water flows from a large gravel pile through several ponds, interconnecting streams, and culverts over a course of about 2.5 miles before exiting the Goldfields through the return channel.

American River fish that Myrick tested tolerated much higher temperatures than those from British Columbia. The American River fish grew the fastest at 66°F (the highest temperature tested) and mortality, as judged by the loss of equilibrium, did not occur until 86°F. However, these tests were conducted while providing large food rations (100% and 87% *ad libitum*) and it is likely that temperature tolerances would be reduced at lower food rations.

{Graphs of water temperature plotted over the year (real not Julian dates please) to show extremes and typical conditions at Daguerre Point Dam and Marysville. Then discuss the response of the fish, perhaps in terms of returning adults, to those temperature regimes.}

### Gravel Recruitment

Englebright Reservoir blocks the supply of spawning-sized gravel to the lower reaches but Englebright and the upper reservoirs do not sufficient enough capacity to completely control the high flows and floods that mobilize gravel and cause channel meander. Frequent flood flows in the lower reaches have prevented the encroachment of riparian vegetation onto the floodplain and so floodplain gravel is available for recruitment to the channel. Other sources of gravel are Deer Creek, Sanborn Creek and Dry Creek, all of which occur between Englebright Dam and Daguerre Point Dam. Another factor that helps maintain gravel in the lower Yuba River is that its functional floodplains ensure that gravel is not being excessively flushed from the streambed during floods. The areas where gravel may be limiting would be the reach between Englebright Dam and the confluence with Deer Creek, which is about 1.2 miles long, and the areas downstream of Daguerre Point Dam.

### Stranding

{Bill Mitchell should add a discussion of stranding here with hypotheses if appropriate}

### Exotic Fish Species

{Brief discussion of exotic species, particularly predators of salmon and steelhead}

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Mitchell, W.T. 1994a. Chinook salmon redd and fry stranding survey. Memorandum to Donn Wilson, Yuba County Water Agency, February 10, 1994.

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Smith, J.G. 1990. Fishery Investigations in the Yuba Goldfields area near Daguerre Point Dam on the Yuba River in 1989. USFWS Report No. AFF1-FAO-90-9. U.S. Fish and Wildlife Service, Fisheries Assistance Office, Red Bluff, California.

S.P. Cramer & Associates, Inc. 1994. Evaluation of juvenile chinook entrainment at the South Yuba-Brophy Diversion Headworks. Final report prepared for South Yuba-Brophy and Yuba County Water Agency.

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Wooster, T.W., and R.H. Wickwire. 1970. A report on the fish and wildlife resources of the Yuba River to be affected by the Marysville Dam and Reservoir and Marysville Afterbay and measures proposed to maintain these resources. California Department of Fish and Game, Environmental Services. (Administrative Report No. 70-4.) Sacramento, CA.

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APPENDIX G  
SUMMARY OF MAJOR FLOODS IN THE YUBA AND FEATHER RIVER WATERSHEDS



## APPENDIX H

### CIRRICULUM VITAE

RACHEL Z. KAMMAN, P.E.  
PRINCIPAL ENGINEERING HYDROLOGIST



**Rachel Z. Kamman, P.E.**  
Principal Engineering Hydrologist

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**Rachel Kamman**

<b>EDUCATION</b>	1994	M. Eng., Civil (Coastal and Hydraulic) Engineering University of California, Berkeley
	1988	B.A. Civil Engineering (Hydraulics and Water Resources) Lafayette College, Easton, PA
<b>REGISTRATION</b>	No. C 056655	Civil Engineer, California
<b>PROFESSIONAL HISTORY</b>	1999 - Present	Principal Engineering Hydrologist Kamman Hydrology, El Cerrito, CA
	1994 - 1998	Senior Associate/Associate Hydrologist Philip Williams & Associates, Ltd., San Francisco, CA
	1993 - 1994	Graduate Student Researcher: Coastal Waves & Sediment Graduate Student Instructor: Hydrology Department of Hydraulic and Coastal Engineering University of California, Berkeley, CA
	1992	Staff Engineer Geomatrix Consultants, Inc., San Francisco, CA
	1988 - 1991	Engineer/Staff Engineer ENVIRON International Corporation, Princeton, NJ

**EXPERIENCE AND INTERESTS**

Ms. Kamman is a registered civil engineer with broad experience in surface and sub-surface hydrology. She specializes in applying hydrologic, hydraulic and hydrodynamic analysis to the protection, restoration and enhancement of coastal, estuarine and river systems. Over the past ten years, Ms. Kamman directed and participated in numerous interdisciplinary studies integrating hydrology, geomorphology, biology and land-use issues.

In performing this work, Ms. Kamman is interested in developing and applying innovative approaches, including advanced numerical models, to the assessment of flood and sediment transport processes in rivers, and circulation, sedimentation and contaminant transport processes in large bays and estuaries. Most recently, she has focused on the development and integration of field monitoring programs, numerical models and long-term management planning for the protection and enhancement of river and coastal resources. The objective of this work is to develop scientifically based decision support tools and facilitate their integration in resource management decision making, and in river and wetland restoration design.

**PROFESSIONAL  
SOCIETIES &  
AFFILIATIONS**

Member, American Geophysical Union  
Member, American Society of Civil Engineers  
Member, Estuarine Research Federation  
Member, International Association for Hydraulic Research  
Member, Society for Ecological Restoration  
Technical Advisor, Audubon Canyon Ranch, Stinson Beach, CA

**RESEARCH  
GRANTS AND  
AWARDS**

- 1997 EPA Grant for the Study of Surface and Groundwater Interaction in the Tijuana Estuary
- 1995 NOAA Grant for the Study of Freshwater Influences on the Salinity Structure of the Tijuana Estuary
- 1992 Tucker Fellowship, University of California, Berkeley

**PUBLICATIONS, REPORTS & PRESENTATIONS****Publications**

- Goodwin, P. and R. Z. Kamman. In Press. Mixing and Circulation in Tidal Wetlands. American Society of Civil Engineers Monograph: Physical Processes in Tidal Wetland Restoration.
- Kamman, R.Z. 1994. Image Processing Techniques in the Study of Wave Induced Sediment and Bed Motion. Masters Thesis: University of California, Berkeley. Department of Civil Engineering: Hydraulic and Coastal Engineering Division.
- Ruggles, R. and R. Zimmon (Kamman). 1988. Movement of Chloride Ions in Saturated Soil Samples during Freezing. Proceedings: 15<sup>th</sup> Annual Water Resources Conference, ASCE Norfolk, VA. June.

**Selected Reports**

- Kamman, R.Z. and M. K Orr (Philip Williams & Assoc.). with Woodward Clyde Consultants. 1998. Preliminary Design for Tidal Wetland Restoration at the Hamilton Army Airfield. Prepared for the California State Coastal Conservancy and the Bay Conservation and Development Commission.
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- Liang, H.B., P. Goodwin, and R. Kamman. (Philip Williams & Assoc.) 1996. North Fork Feather River: Sediment Pass-through Study of Rock Creek and Cresta Dams. Prepared for Pacific Gas and Electric Company.
- Kamman, R.Z., E. Zedler, P. Goodwin, (Philip Williams & Assoc.) and R. Sobey, (Univ. of CA, Berkeley). 1995. Preliminary Assessment of a Salinity Model for the Tijuana Estuary. Restoring Coastal Wetlands Annual Report. Prepared for the Pacific Estuarine Research Laboratory, San Diego State University.
- Kamman, R. Z. and R. Coats, (Philip Williams & Assoc.) 1995. San Rafael Canal Flood Damage Reduction Project: Hydraulic Design for Habitat Mitigation Measures at Pickleweed Park and Seastrand Marsh. Prepared for the US Army Corps of Engineers, San Francisco District.
- Kamman, R. Z. and P. Goodwin (Philip Williams & Assoc.) 1995. Tidal Circulation in Mugu Lagoon. Prepared for the Environmental Division, Naval Air Station, Point Mugu, California, and PRC Environmental Management.

### **Presentations**

- Kamman, R.Z. 1998. Tidal Flow, Sedimentation and Circulation in Bolinas Lagoon. Advanced Docent Training Seminar. Audubon Canyon Ranch, Stinson Beach, California. March.
- Kamman, R.Z. 1997. Integrating Based Closure with Tidal Wetland Restoration. EPA Region IX Special Facilities Conference. San Francisco, CA., April.
- Kamman, R.Z. 1997. Modeling Tools and Approaches for Assessment and Resource Management in Upper Newport Bay. Presentation for the Newport Bay Board of Managers Technical Advisory Committee; US Army Corps of Engineers, LA District; Santa Ana Regional Water Quality Control Board; Orange County and The City of Newport Beach.
- Kamman, R.Z. and P. Williams. 1997. Restoration of Tidal Wetlands in San Francisco Bay. 27<sup>th</sup> Congress of the International Association of Hydraulic Research. Co-Sponsored by the American Society of Civil Engineers. San Francisco, CA., August.
- Kamman, R.Z. 1996. Adaptive Modeling in Tidal Wetland Restoration. Bay Delta Modeling Forum/ San Francisco Estuary Institute: Habitat Restoration Modeling Workshop. Sacramento, CA., September.
- Kamman, R.Z.. 1995. Short Course Lectures: I.) Lagoon Hydrodynamics: Conservation Equations, Closure Relationships, Salinity Distributions, Mixing Processes and Estuarine Circulation. II.) DIVAST Workshop: Lagoon Assessment using a 2-Dimensional Hydrodynamic Model. Physical Processes Influencing the Management of Mugu Lagoon. Sponsored by the Environmental Division, Naval Air Station, Point Mugu, California.

## DISCRIMINATION COMPLIANCE STATEMENT

REV. 3-95) FMC

COMPANY NAME

SYRCL

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

## CERTIFICATION

*I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.*

SHAWN GARVEY

OFFICIAL'S NAME

DATE EXECUTED

4-12-99

EXECUTED IN THE COUNTY OF

NEVADA COUNTY CA

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

**STANDARD CLAUSES --  
SMALL BUSINESS PREFERENCE AND CONTRACTOR IDENTIFICATION NUMBER**

**NOTICE TO ALL BIDDERS:**

Section 14835, et. seq. of the California Government Code requires that a five percent preference be given to bidders who qualify as a small business. The rules and regulations of this law, including the definition of a small business for the delivery of service, are contained in Title 2, California Code of Regulations, Section 1896, et. seq. A copy of the regulations is available upon request. Questions regarding the preference approval process should be directed to the Office of Small and Minority Business at (916) 322-5060. To claim the small business preference, you must submit a copy of your certification approval letter with your bid.

Are you claiming preference as a small business?

\_\_\_\_ Yes\*

X No

\*Attach a copy of your certification approval letter.



# SOUTH YUBA RIVER CITIZENS LEAGUE

240 Commercial Street, Suite E • Post Office Box 841 • Nevada City, California 95959  
530/265-5961 • Fax 530/265-6232 • [www.syrcl.org](http://www.syrcl.org)

April 15, 1999

Delta Protection Commission  
14215 River Road  
P.O. Box 530  
Walnut Grove, 95690

To whom it may concern:

As required in the CALFED February '99 Proposal Solicitation Package, SYRCL is forwarding for your review a proposal to fund a "YUBA TOOLS: An investigation of watershed management for enhanced flood control.:

SYRCL has worked actively towards restoration and protection of the Yuba Watershed since 1983. SYRCL has 2,350 dues paying members and a staff of 6.5 FTE. SYRCL has been successful in planning and implementing numerous watershed protection efforts. YUBA TOOLS extends the capacity of the organization to actively lead the 46 participants and collaborators on this project in successfully planning for mutually beneficial watershed enhancements and flood control planning.

Thank you for attention.

Sincerely,

  
Shawn Garvey  
Executive Director